

A P P E N D I X

plant communities
The Levee Forest Community Type

Canopy species:

- Sycamore – *Platanus occidentalis*
- River birch – *Betula nigra*
- Sugarberry – *Celtis laevigata*
- Box elder – *Acer negundo*
- Sweetgum – *Liquidambar styraciflua*
- Swamp chestnut oak – *Quercus michauxii*
- Tulip poplar – *Liriodendron tulipifera*
- Green ash – *Fraxinus pennsylvanica*
- American elm – *Ulmus americana*
- Bitternut hickory – *Carya cordiformis*
- Black walnut – *Juglans nigra*
- Shagbark hickory – *Carya ovata*

Understory species include:

- Box elder
- Pawpaw – *Asimina triloba*
- Ironwood – *Carpinus caroliniana*
- American holly – *Ilex opaca*
- Shrubs include:

- Spicebush – *Lindera benzoin*
- Buckeye – *Aesculus sylvatica*
- Yellowroot – *Xanthorhiza simplicissima*
- Giant cane – *Arundinaria gigantea*

Woody vines include:

- Poison ivy – *Toxicodendron radicans*
- Virginia creeper – *Parthenocissus quinquefolia*
- Cross vine – *Bignonia capreolata*
- Greenbrier – *Smilax* spp.
- Trumpet vine – *Campsis radicans*
- Grape – *Vitis* spp.

Herbaceous species in the usually lush ground cover include:

- False nettle – *Boehmeria cylindrica*
- Uniola grass – *Uniola latifolia*
- Bottlebrush grass – *Elymus hystrix*
- Verbesina – *Verbesina alternifolia*
- Saxifrage – *Saxifraga virginensis*
- Stonecrop – *Sedum ternatum*
- Blue-stem goldenrod – *Solidago caesia*

- Heart-leaved aster – *Aster divaricatus*
- Virgin-bower – *Clematis virginiana*
- Grape fern – *Botrychium virginianum*
- Virginia wild rye grass – *Elymus virginicus*
- Spring beauty – *Claytonia virginiana*
- Giant chickweed – *Stellaria pubera*
- Violets – *Viola* spp.
- Green coneflower – *Rudbeckia laciniata*

The Bottomland Hardwood Forest
Canopy:

- Tulip poplar
- Sweetgum
- Southern red oak – *Quercus falcata*
- Swamp chestnut oak
- American elm
- Sugarberry
- Green ash
- Shagbark hickory
- Bitternut hickory

Understory species include:

- Ironwood
- Southern sugar maple – *Acer floridanum*
- Red maple – *Acer rubrum*
- Flowering dogwood – *Cornus florida*
- American holly
- Pawpaw

Shrub species include:

- Buckeye
- Strawberry bush – *Euonymus americanus*
- Giant cane

Woody vines include:

- Poison ivy
- Virginia creeper
- Cross vine
- Greenbrier
- Moonseed – *Menispermum canadense*
- Grape

Herbaceous species include:

- False nettle

- Christmas fern – *Polystichum acrostichoides*
- Sedges – *Carex* spp.
- Honewort – *Cryptotaenia canadensis*
- Lopseed – *Polygonum virginianum*
- Jack-in-the-pulpit – *Arisaema triphyllum*
- Violets
- Senecio – *Senecio aureus*
- Virginia wild rye grass
- Blue-stem goldenrod
- Heartleaved aster
- Uniola grass

The Heath Bluff Community

A dense shrub layer is often dominated by mountain laurel (*Kalmia latifolia*) witch hazel (*Hamamelis virginiana*), horse sugar (*Symplocos tinctoria*), and blueberries (*Vaccinium* spp.).

Tree canopy is generally sparse, but may include rock chestnut oak (*Quercus montana*), virginia pine (*Pinus virginiana*), loblolly pine, sourwood (*Oxydendrum arboretum*), red maple, and serviceberry (*Amelanchier arborea*).

Herbs are generally sparse under the dense shrubs, but may include galax (*Galax aphylla*), spotted wintergreen (*Chimaphila maculata*), and partridge berry (*Mitchella repens*).

cost estimate

Cordelia Park to 10th Street				
	Quantity	Units	Unit Price	Total
Hard Costs				
Mobilization	0.5	1 mile	\$4,000.00	\$2,000.00
Demolition	2%	-	2%	\$23,750.80
Clearing and Grubbing	1.8	AC	\$2,000.00	\$3,600.00
Earthwork	5800	CY	\$4.00	\$23,200.00
Stream Restoration	6336	LF	\$50.00	\$316,800.00
Erosion Control/Tree Protection	1750	LF	\$5.00	\$8,750.00
Drainage	4	LS	\$5,000.00	\$20,000.00
Trail System				
Primary Trail	1750	LF	\$16.00	\$28,000.00
Secondary Trail	820	LF	\$9.00	\$7,380.00
Primary Trailhead	1	LS	\$15,000.00	\$15,000.00
Secondary Trailhead	21	LS	\$3,000.00	\$63,000.00
Street Crossings				
Street Crossing	3	LS	\$20,000.00	\$60,000.00
Underpass	2	LS	\$100,000.00	\$200,000.00
Existing Pedestrian Bridge Improvements	7	LS	\$5,000.00	\$35,000.00
Vehicular Bridge Improvements	1	LS	\$30,000.00	\$30,000.00
Buildings				
Shelter	1	LS	\$40,000.00	\$40,000.00
Concession/Restrooms	1	LS	\$150,000.00	\$150,000.00
Furnishings				
Bicycle Racks	5	LS	\$200.00	\$1,000.00
Benches	12	LS	\$1,380.00	\$16,560.00
Trash Receptacles	6	LS	\$400.00	\$2,400.00
Safety Telephone	0	LS	\$5,000.00	\$-
Drinking Fountain	1	LS	\$6,500.00	\$6,500.00
Signage				
Information Kiosk	1	LS	\$6,000.00	\$6,000.00
Mile Markers	5	LS	\$150.00	\$750.00
Directional Sign	2	LS	\$700.00	\$1,400.00
Pedestrian Lighting	5	LS	\$3,700.00	\$18,500.00
Landscaping				
Trail	6150	LF	\$30.00	\$184,500.00
Park	0	AC	\$40,000.00	\$-
Irrigation	20000	SF	\$0.45	\$9,000.00
Special Components				
Ornamental Pond	1	LS	\$75,000.00	\$75,000.00
Amphitheater	1	LS	\$60,000.00	\$60,000.00
Community Garden	3	LS	\$40,000.00	\$120,000.00
Subtotal				\$1,528,090.80
Contingency 15%				\$229,213.62
GRAND TOTAL				\$1,757,304.42

10th Street to Morehead Street				
	Quantity	Units	Unit Price	Total
Hard Costs				
Mobilization	1.2	1 mile	\$4,000.00	\$4,800.00
Demolition	2%	-	2%	\$63,419.80
Clearing and Grubbing	1	AC	\$2,000.00	\$2,000.00
Earthwork	19000	CY	\$4.00	\$76,000.00
Stream Restoration	8976	LF	\$150.00	\$1,346,400.00
Erosion Control/Tree Protection	5800	LF	\$5.00	\$29,000.00
Drainage	6	LS	\$5,000.00	\$30,000.00
Trail System				
Primary Trail	6500	LF	\$16.00	\$104,000.00
Sidewalk Improvements	3000	LF	\$20.00	\$60,000.00
Primary Trailhead	2	LS	\$21,500.00	\$43,000.00
Secondary Trailhead	14	LS	\$3,000.00	\$42,000.00
Street Crossings				
Street Crossing	3	LS	\$20,000.00	\$60,000.00
Underpass	4	LS	\$100,000.00	\$400,000.00
Pedestrian Bridges/Improvements	0	LS	\$100,000.00	\$-
Vehicular Bridge Improvements	3	LS	\$30,000.00	\$90,000.00
Buildings				
Shelter	0	LS	\$40,000.00	\$-
Concession/Restrooms	0	LS	\$150,000.00	\$-
Furnishings				
Bicycle Racks	10	LS	\$200.00	\$2,000.00
Benches	33	LS	\$1,380.00	\$45,540.00
Trash Receptacles	13	LS	\$400.00	\$5,200.00
Safety Telephone	0	LS	\$5,000.00	\$-
Drinking Fountain	1	LS	\$6,500.00	\$6,500.00
Signage				
Information Kiosk	2	LS	\$6,000.00	\$12,000.00
Mile Markers	7	LS	\$150.00	\$1,050.00
Directional Sign	2	LS	\$700.00	\$1,400.00
Pedestrian Lighting	110	LS	\$3,700.00	\$407,000.00
Landscaping				
Trail	5800	LF	\$30.00	\$174,000.00
Park	17.2	AC	\$40,000.00	\$688,000.00
Irrigation	150000	SF	\$0.45	\$67,500.00
Special Components				
Amphitheater	1	LS	\$250,000.00	\$250,000.00
Fountain / Pools	4	LS	\$130,000.00	\$520,000.00
Pond	1	LS	\$50,000.00	\$50,000.00
Subtotal				\$4,580,809.80
Contingency 15%				\$687,121.47
GRAND TOTAL				\$5,267,931.27

Note: Not included the cost estimate: land acquisition, “Opportunity Area” improvements beyond greenway proper.

Morehead Street to Princeton Avenue				
	Quantity	Units	Unit Price	Total
Hard Costs				
Mobilization	0.5	1 mile	\$4,000.00	\$2,000.00
Demolition	2%	-	2%	\$6,779.20
Clearing and Grubbing	0.5	AC	\$2,000.00	\$1,000.00
Earthwork	7000	CY	\$4.00	\$28,000.00
Stream Restoration	3220	LF	\$150.00	\$483,000.00
Erosion Control/Tree Protection	2200	LF	\$5.00	\$11,000.00
Drainage	2	LS	\$5,000.00	\$10,000.00
Trail System				
Primary Trail	2200	LF	\$16.00	\$35,200.00
Secondary Trail	200	LF	\$9.00	\$1,800.00
Primary Trailhead	1	LS	\$15,000.00	\$15,000.00
Secondary Trailhead	7	LS	\$3,000.00	\$21,000.00
Street Crossings				
Street Crossing	1	LS	\$20,000.00	\$20,000.00
Underpass	0	LS	\$100,000.00	\$-
Existing Pedestrian Bridges/Improvements	6	LS	\$5,000.00	\$30,000.00
Vehicular Bridge Improvements	2	LS	\$30,000.00	\$60,000.00
Buildings				
Shelter	0	LS	\$40,000.00	\$-
Concession/Restrooms	0	LS	\$150,000.00	\$-
Furnishings				
Bicycle Racks	5	LS	\$200.00	\$1,000.00
Benches	7	LS	\$1,380.00	\$9,660.00
Trash Receptacles	3	LS	\$400.00	\$1,200.00
Safety Telephone	0	LS	\$5,000.00	\$-
Drinking Fountain	1	LS	\$6,500.00	\$6,500.00
Signage				
Information Kiosk	1	LS	\$6,000.00	\$6,000.00
Mile Markers	6	LS	\$150.00	\$900.00
Directional Sign	1	LS	\$700.00	\$700.00
Pedestrian Lighting	0	LS	\$3,700.00	\$-
Landscaping				
Trail	2600	LF	\$30.00	\$78,000.00
Park		AC	\$40,000.00	\$-
Irrigation		SF	\$0.45	\$-
Subtotal				\$828,739.20
Contingency 15%				\$124,310.88
GRAND TOTAL				\$953,050.08

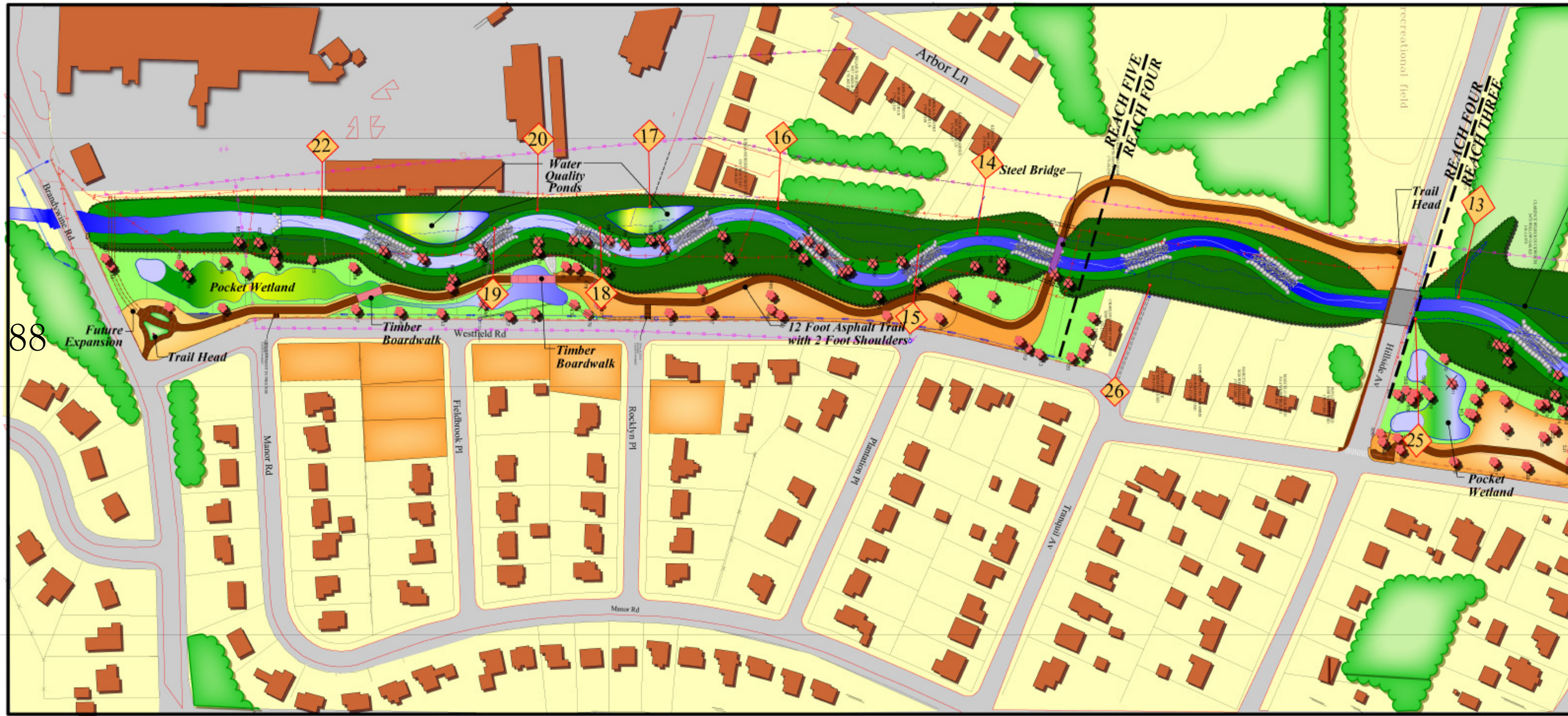
Princeton Avenue to Archdale Drive				
	Quantity	Units	Unit Price	Total
Hard Costs				
Mobilization	3	1 mile	\$4,000.00	\$12,000.00
Demolition	2%	-	2%	\$71,009.60
Clearing and Grubbing	16.6	AC	\$2,000.00	\$33,200.00
Earthwork	53500	CY	\$4.00	\$214,000.00
Stream Restoration	15840	LF	\$150.00	\$2,376,000.00
Erosion Control/Tree Protection	16100	LF	\$5.00	\$80,500.00
Drainage	16	LS	\$5,000.00	\$80,000.00
Trail System				
Primary Trail	11700	LF	\$16.00	\$187,200.00
Sidewalk Improvements	14900	LF	\$20.00	\$298,000.00
Secondary Trail	1800	LF	\$9.00	\$16,200.00
Boardwalk	920	LF	\$100.00	\$92,000.00
Primary Trailhead	2	LS	\$21,500.00	\$43,000.00
Secondary Trailhead	15	LS	\$3,000.00	\$45,000.00
Street Crossings				
Street Crossing	1	LS	\$20,000.00	\$20,000.00
Underpass	5	LS	\$100,000.00	\$500,000.00
Underpass/Boring	1	LS	\$200,000.00	\$200,000.00
Pedestrian Bridges/Improvements	7	LS	\$105,000.00	\$735,000.00
Existing Pedestrian Bridge Improvements	2	LS	\$5,000.00	\$10,000.00
Small Pedestrian Bridges	2	LS	\$3,000.00	\$6,000.00
Vehicular Bridge Improvements	6	LS	\$30,000.00	\$180,000.00
Buildings				
Shelter	3	LS	\$40,000.00	\$120,000.00
Concession/Restrooms	1	LS	\$150,000.00	\$150,000.00
Furnishings				
Bicycle Racks	10	LS	\$200.00	\$2,000.00
Benches	34	LS	\$1,120.00	\$38,080.00
Trash Receptacles	18	LS	\$400.00	\$7,200.00
Safety Telephone	1	LS	\$5,000.00	\$5,000.00
Drinking Fountain	1	LS	\$6,500.00	\$6,500.00
Signage				
Information Kiosk	2	LS	\$6,000.00	\$12,000.00
Mile Markers	20	LS	\$150.00	\$3,000.00
Directional Sign	2	LS	\$700.00	\$1,400.00
Pedestrian Lighting	0	LS	\$3,700.00	\$-
Landscaping				
Trail	16100	LF	\$12.00	\$193,200.00
Park		AC	\$40,000.00	\$-
Irrigation		SF	\$0.45	\$-
Special Components				
Neighborhood Gardens	4	LS	\$40,000.00	\$160,000.00
Play Equipment	4	LS	\$25,000.00	\$100,000.00
Subtotal				\$5,997,489.60
Contingency 15%				\$899,623.44
GRAND TOTAL				\$6,897,113.04

Archdale Drive to I-485				
	Quantity	Units	Unit Price	Total
Hard Costs				
Mobilization	3.3	1 mile	\$4,000.00	\$13,200.00
Demolition	2%	-	2%	\$42,656.00
Clearing and Grubbing	18	AC	\$2,000.00	\$36,000.00
Earthwork	58000	CY	\$4.00	\$232,000.00
Stream Restoration	13200	LF	\$150.00	\$1,980,000.00
Stream Restoration	6864	LF	\$50.00	\$343,200.00
Erosion Control/Tree Protection	17200	LF	\$5.00	\$86,000.00
Drainage	17	LS	\$5,000.00	\$85,000.00
Trail System				
Primary Trail	17200	LF	\$16.00	\$275,200.00
Secondary Trail	7000	LF	\$9.00	\$63,000.00
Primary Trailhead	1	LS	\$46,500.00	\$46,500.00
Secondary Trailhead	13	LS	\$3,000.00	\$39,000.00
Street Crossings				
Street Crossing	0	LS	\$20,000.00	\$-
Underpass	2	LS	\$100,000.00	\$200,000.00
Pedestrian Bridges/Improvements	3	LS	\$105,000.00	\$315,000.00
Existing Pedestrian Bridge Improvements	1	LS	\$5,000.00	\$5,000.00
Small Pedestrian Bridges	3	LS	\$3,000.00	\$9,000.00
Vehicular Bridge Improvements	2	LS	\$30,000.00	\$60,000.00
Buildings				
Shelter	2	LS	\$40,000.00	\$80,000.00
Concession/Restrooms	1	LS	\$150,000.00	\$150,000.00
Furnishings				
Bicycle Racks	5	LS	\$200.00	\$1,000.00
Benches	40	LS	\$1,120.00	\$44,800.00
Trash Receptacles	20	LS	\$400.00	\$8,000.00
Safety Telephone	1	LS	\$5,000.00	\$5,000.00
Drinking Fountain	1	LS	\$6,500.00	\$6,500.00
Signage				
Information Kiosk	1	LS	\$6,000.00	\$6,000.00
Mile Markers	16	LS	\$150.00	\$2,400.00
Directional Sign	2	LS	\$700.00	\$1,400.00
Pedestrian Lighting	0	LS	\$3,700.00	\$-
Landscaping				
Trail	17200	LF	\$12.00	\$206,400.00
Park		AC	\$40,000.00	\$-
Irrigation		SF	\$0.45	\$-
Special Components				
Community Garden	2	LS	\$40,000.00	\$80,000.00
Secondary Trail / Running Path	3280	LF	\$5.00	\$16,400.00
Open Space Area	2	LS	\$5,000.00	\$10,000.00
Play Equipment	2	LS	\$25,000.00	\$50,000.00
Subtotal				\$4,498,656.00
Contingency 15%				\$674,798.40
GRAND TOTAL				\$5,173,454.40

I-485 to Polk Street				
	Quantity	Units	Unit Price	Total
Hard Costs				
Mobilization	1.6	1 mile	\$4,000.00	\$6,400.00
Demolition	2%	-	2%	25,952.40
Clearing and Grubbing	6.4	AC	\$2,000.00	\$12,800.00
Earthwork	20650	CY	\$4.00	\$82,600.00
Stream Restoration	8448	LF	\$150.00	\$1,267,200.00
Erosion Control/Tree Protection	7000	LF	\$5.00	\$35,000.00
Drainage	9	LS	\$5,000.00	\$45,000.00
Trail System				
Primary Trail	6270	LF	\$16.00	\$100,320.00
Secondary Trail	950	LF	\$9.00	\$8,550.00
Boardwalk	2430	LF	\$100.00	\$243,000.00
Primary Trailhead	2	LS	\$15,000.00	\$30,000.00
Secondary Trailhead	5	LS	\$3,000.00	\$15,000.00
Street Crossings				
Street Crossing	0	LS	\$20,000.00	\$-
Underpass	2	LS	\$100,000.00	\$200,000.00
Pedestrian Bridges/Improvements	1	LS	\$105,000.00	\$105,000.00
Existing Pedestrian Bridge Improvements	1	LS	\$5,000.00	\$5,000.00
Small Pedestrian Bridges	4	LS	\$3,000.00	\$12,000.00
Vehicular Bridge Improvements	1	LS	\$30,000.00	\$30,000.00
Buildings				
Shelter	1	LS	\$40,000.00	\$40,000.00
Concession/Restrooms	1	LS	\$150,000.00	\$150,000.00
Furnishings				
Bicycle Racks	5	LS	\$200.00	\$1,000.00
Benches	20	LS	\$1,120.00	\$22,400.00
Trash Receptacles	9	LS	\$400.00	\$3,600.00
Safety Telephone	1	LS	\$5,000.00	\$5,000.00
Drinking Fountain	1	LS	\$6,500.00	\$6,500.00
Signage				
Information Kiosk	2	LS	\$6,000.00	\$12,000.00
Mile Markers	7	LS	\$150.00	\$1,050.00
Directional Sign	2	LS	\$700.00	\$1,400.00
Pedestrian Lighting	0	LS	\$3,700.00	\$-
Landscaping				
Trail	7000	LF	\$12.00	\$84,000.00
Park	0	AC	\$40,000.00	\$-
Irrigation	0	SF	\$0.45	\$-
Special Components				
Education Garden	1	LS	\$40,000.00	\$40,000.00
Subtotal				\$2,590,772.40
Contingency 15%				\$388,615.86
GRAND TOTAL				\$2,979,388.26

Polk Street to NC/SC State Line				
	Quantity	Units	Unit Price	Total
Hard Costs				
Mobilization	2.1	1 mile	\$4,000.00	\$8,400.00
Demolition	2%	-	2%	\$38,677.00
Clearing and Grubbing	6.8	AC	\$2,000.00	\$13,600.00
Earthwork	22000	CY	\$4.00	\$88,000.00
Stream Restoration	11088	LF	\$150.00	\$1,663,200.00
Erosion Control/Tree Protection	10000	LF	\$5.00	\$50,000.00
Drainage	10	LS	\$5,000.00	\$50,000.00
Trail System				
Primary Trail	10000	LF	\$16.00	\$160,000.00
Secondary Trail	600	LF	\$9.00	\$5,400.00
Boardwalk	1100	LF	\$200.00	\$220,000.00
Primary Trailhead	1	LS	\$15,000.00	\$15,000.00
Secondary Trailhead	4	LS	\$3,000.00	\$12,000.00
Street Crossings				
Street Crossing		LS	\$20,000.00	\$-
Underpass	1	LS	\$100,000.00	\$100,000.00
Pedestrian Bridges/Improvements	4	LS	\$105,000.00	\$420,000.00
Vehicular Bridge Improvements	1	LS	\$30,000.00	\$30,000.00
Buildings				
Shelter	2	LS	\$40,000.00	\$80,000.00
Visitors Center	1	LS	\$500,000.00	\$500,000.00
Furnishings				
Bicycle Racks	5	LS	\$200.00	\$1,000.00
Benches	25	LS	\$1,120.00	\$28,000.00
Trash Receptacles	11	LS	\$400.00	\$4,400.00
Safety Telephone	1	LS	\$5,000.00	\$5,000.00
Drinking Fountain	1	LS	\$6,500.00	\$6,500.00
Signage				
Information Kiosk	1	LS	\$6,000.00	\$6,000.00
Mile Markers	21	LS	\$150.00	\$3,150.00
Directional Sign	2	LS	\$700.00	\$1,400.00
Pedestrian Lighting	0	LS	\$3,700.00	\$-
Landscaping				
Trail	10000	LF	\$12.00	\$120,000.00
Park	0	AC	\$40,000.00	\$-
Irrigation	0	SF	\$0.45	\$-
Special Components				
Wildlife Observation Overlooks	3	LS	\$2,000.00	\$6,000.00
Subtotal				\$3,635,727.00
Contingency 15%				\$545,359.05
GRAND TOTAL				\$4,181,086.05

westfield road design





LEGEND

Mown Park Land	Vegetated Stream Banks	Greenway Trail	Tree to be Removed	Rock Habitat Structures
Forested Floodplain	Low Flow Channel	Storm Sewer Outfall Location	Preserved Tree	
Forested Park Land				

Little Sugar Environmental Restoration
CONCEPTUAL DESIGN

0 80 160 240 feet

Logos for participating organizations: BUCK, CDM, and others.

road crossings

The ideal trail treatment at each road crossing would be both an above-grade and below-grade crossing. This section examines the existing conditions at each road crossing to determine the feasibility for a below-grade crossing. Future improvements to a bridge could allow for a below-grade crossing which is not currently feasible.



NOTES:

Trail Under: yes

Access:

Sidewalks: NW side of street only

Grade: Severe on NW side

Special Conditions: Land to support access for underpass will be required on northwest side. Could be used for future northward expansion of Greenway.

Little Sugar Creek/N. Davidson Street



100 0 100 Feet

Date: July 17, 2002
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NOTES:

Trail Under: no

Access:

Sidewalks: Both sides

Grade: Very steep on N/NE side

Special Conditions: Trail on South side is finished (At Grade). Trail is offset to Davidson Street to continue northward through Cordelia Park.

Little Sugar Creek/Parkwood Ave.



100 0 100 Feet

Date: July 17, 2002
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NOTES:

Trail Under: no

Access:

Sidewalks: South side only

Grade: OK

Special Conditions: Trail has been completed with at-grade crossing of street.

Little Sugar Creek/18th Street



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NOTES:

Trail Under: no

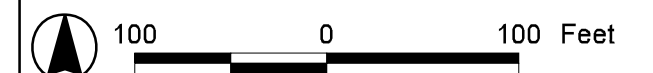
Access:

Sidewalks: Both sides, but narrow

Grade: Presents no constraints

Special Conditions: Greenway trail is complete north of Belmont; under design on south side. County is acquiring land on south side of Belmont and west side of Little Sugar Creek; potential use for stormwater management.

Little Sugar Creek/Belmont Avenue



Date: July 17, 2002
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NOTES:

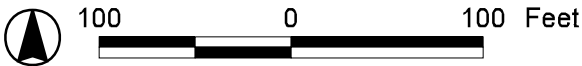
Trail Under: yes

Access: N/A - No pedestrian access along railway

Sidewalks: N/A
Grade: N/A

Special Conditions: Greenway trail is under design to pass under CSX bridge on west side of Little Sugar Creek.

Little Sugar Creek/CSX Railroad



Date: July 17, 2002
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PICTURE
NOT AVAILABLE

PICTURE
NOT AVAILABLE

NOTES:

Trail Under: no

Access:

Sidewalks:

Grade:

Special Conditions:

Little Sugar Creek/I-277 Area



400 0 400 Feet

Date: July 8, 2002
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NOTES:

Trail Under: yes

Access:

Sidewalks: On both sides

Grade: Steep on east side/ low on west

Special Conditions: I-277 ramps on west restrict access.

Little Sugar Creek/4th Street



100 0 100 Feet

Date: July 17, 2002
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NOTES:

Trail Under: yes

Access:

Sidewalks: Both sides

Grade: West side is steep and constrained by I-277 ramps. Southeast corner constrained by existing development.

Special Conditions:

Little Sugar Creek/3rd Street



Date: July 17, 2002
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LandDesign

HDR



NOTES:

Trail Under: yes (Under only if Midtown Mall is redeveloped.)

Access:
Sidewalks: no
Grade: Steep

Special Conditions: Midtown Mall parking structures on south side extend to Baxter Street.

Little Sugar Creek/Independence Blvd.





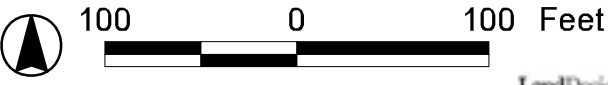
NOTES:

Trail Under: no

Access:
Sidewalks: Both sides
Grade:

Special Conditions: Bridge has been slated for realignment and reconstruction. New bridge should be designed to accomodate trail beneath and sidewalks on both sides.

Little Sugar Creek/Baxter Street



Date: July 17, 2002
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NOTES:

Trail Under: no; Arch design of bridge does not provide adequate head room.

Access:

Sidewalks: Both sides

Grade: Steep on South side of East Morehead Street

Special Conditions: Trail exists on south side. Access by stairs. County is acquiring commercial properties on east side of creek north and south of East Morehead Street. Creates potential for new underpass.

Little Sugar Creek/East Morehead Street



100 0 100 Feet

Date: July 17, 2002
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LandDesign



HDR



NOTES:

Trail Under: yes (exists)

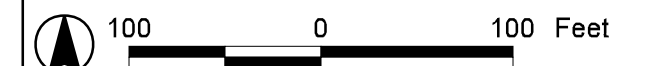
Access:

Sidewalks: On bridge

Grade: Steps on both sides

Special Conditions: Trail and access ramps already exist.

Little Sugar Creek/
Carolinas Medical Center Drive



Date: July 17, 2002
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NOTES:

Trail Under: yes (exists)

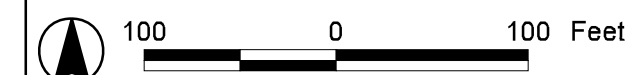
Access:

Sidewalks: Both sides

Grade: Steep - ramp in place

Special Conditions: Trails already exists on north side of Freedom Park. Parking currently provided. Trail through Freedom Park is being redesigned as part of stream restoration.

Little Sugar Creek/East Boulevard



Date: July 17, 2002
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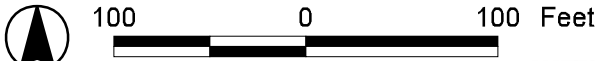
NOTES:

Trail Under: yes

Access:
 Sidewalks: North side only (narrow)
 Grade: Steep, but on north side it is possible to ramp down on west side of creek within Freedom Park.

Special Conditions: South side of Princeton is steep, and is tight on both banks. Freedom Park portion of Little Sugar Creek currently under stream restoration.

Little Sugar Creek/Princeton Avenue





NOTES:

Trail Under: yes

Access:

Sidewalks: South side only

Grade: Steep on both sides, but plenty of room on east side to ramp down.

Special Conditions: Single span bridge. Park Road Elementary School at southwest corner. Houses demolished on east side, north of Hillside and south of pedestrian bridge which is south of Hillside.

Little Sugar Creek/Hillside Avenue



100 0 100 Feet

Date: July 17, 2002
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NOTES:

Trail Under: yes

Access:

Sidewalks: Both sides (narrow)
 Grade: North of bridge: Very steep to parking on west side of Little Sugar Creek. East side is steep, but plenty of land to ramp down.
 South of bridge: both sides are very steep.

Special Conditions: Houses on east side have been acquired and demolished. Neighborhood access via cleared land on east side. Pipe crossing fifty feet south of bridge (clearance o.k.)

Little Sugar Creek/Brandywine Road



Date: July 17, 2002
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NOTES:

Trail Under: yes

Access:
Sidewalks: Both sides
Grade: Very steep on both sides

Special Conditions: Four box culvert. Rather than going under the Brandywine bridge, the trail could cross Brandywine and follow the north/east side of the creek on the rears of large lots. At the east side of the Woolawn culvert, there appears to be adequate room to bore a pedestrian underpass, that is well above normal water levels, to continue the trail along the top of the east bank.



NOTES:

Trail Under: yes

Access:

Sidewalks: West side only, east very tight

Grade: Very steep, lowest at southwest;
land may be available for ramp on northeast.

Special Conditions: The trail can pass under the bridge on the north side and ramp up to the office parking lot. The parking layout can be reconfigured to add room for the trail.

Little Sugar Creek/Park Road



100 0 100 Feet

Date: July 17, 2002
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NOTES:

- Trail Under: yes
- Access:
 Sidewalks: Both sides
 Grade: Moderate - land available for
 ramping.
- Special Conditions: Direct access to Marion Diehl Park at northwest. Sewer plant property at southwest could provide land for parking and other support uses.

Little Sugar Creek/Tyvola Road



Date: July 17, 2002
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NOTES:

Trail Under: yes (if needed)

Access:

 Sidewalks: No

 Grade: Moderate, but adequate land for ramping.

Special Conditions: Service road within Treatment Plant. Minimal traffic. Land on west side of creek appears unused. Potential use for park should be explored with CMUD.

Little Sugar Creek/Treatment Plant Road

100
0
100 Feet

Date: July 17, 2002
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NOTES:

Trail Under: yes

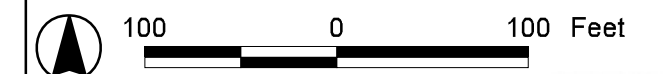
Access:

Sidewalks: On bridge only (both sides)

Grade: Moderate - easy to handle

Special Conditions: Powerline ROW down creek. Southwest side - City of Charlotte utility valves (looks like gas)

Little Sugar Creek/Archdale Drive



Date: July 17, 2002
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NOTES:

Trail Under: yes

Access:

Sidewalks: Both sides

Grade: South side of bridge is steep.

North side is moderate. Available room for ramping on all four corners.

Special Conditions: Pipe crossing creek could be obstruction. Open land on three corners - can it be acquired for parking and other support facilities?

Little Sugar Creek/Sharon Road West



100 0 100 Feet

Date: July 17, 2002
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NOTES:

Trail Under: yes

Access:

Sidewalks: Not applicable

Grade: Very amenable

Special Conditions: Coordination with NCDOT required. "Encroachment Agreement" with NCDOT will be used, (sample provided).

Little Sugar Creek/I-485



Date: July 17, 2002
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NOTES:

Trail Under: yes

Access:

Sidewalks: South side (in both directions)
North side (only on bridge)

Grade: Land on both sides is managable

Special Conditions: Apparent floodplain areas
at all four corners present open space
opportunities.

Little Sugar Creek/NC 51



100 0 100 Feet

Date: July 17, 2002
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NOTES:

Trail Under: yes

Access:

Sidewalks: No

Grade: Northeast - Steep
Southeast - good access from
James Polk Historical Site

Special Conditions:

Little Sugar Creek/Polk Street



Date: July 17, 2002
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LandDesign



HDR

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